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| 09/880,688 | 06/13/2001 | Annemarie Poustka | POUSTKA-2 | 6614 |

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|---|---|
| EPPERSON, JON D | |
| **ART UNIT** | **PAPER NUMBER** |
| 1639 | |

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/880,688 | POUSTKA ET AL. | |
| | Examiner | Art Unit | |
| | Jon D. Epperson | 1639 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *11-14 and 27-74* is/are pending in the application.

4a) Of the above claim(s) *11-14,27-36,48 and 65* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-47,49-64 and 66-74* is/are rejected.

7)☒ Claim(s) *37,39 and 72* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/13/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Status of the Application*

1. Receipt is acknowledged of a Response to a Restriction Requirement, which was dated on May 5, 2005.

### *Status of the Claims*

2. Claims 1-36 were pending. Applicants canceled claims 1-10 and 15-26 (drawn to Group I) in favor of new claims 37-74 (e.g., see 6/14/04 Response). Consequently, claims 11-14 and 27-74 are pending.

3. Applicant's response to the Restriction and/or Election of Species requirements is acknowledged (Applicant elected Group I, claims 37-74) and claims 11-14 and 27-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim (see below i.e., ***Response to Restriction and/or Election of Species***).

4. Please note: Applicant's elected species (Subgroup 1 = polystyrene; Subgroup 2 = Fmoc-amino acid; Subgroup 3 = Fmoc-Amino acid; Subgroup 6 = solid particles; Subgroup 7 = Dimethyl formamide; Subgroup 8 = 22°C for printing of particles; Subgroup 9 = laser printer; Subgroup 10 = light emitting diodes; Subgroup 11 = D or L amino acids; Subgroup 12 = Fmoc; Subgroup 13 = solid state of aggregation) was found in the art. Furthermore, Applicant's *specifically* elected species (Subgroup 4 = Diphenyl formamide; Subgroup 5 = Diphenyl

formamide; Subgroup 14 = 10 μm) was searched and was not found in the prior art. Thus, the search was expanded to non-elected species, which *were* found in the prior art, see rejections below. Also, see MPEP § 803.02 (emphasis added):

> On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a nonelected species, the Markush-type claim shall be rejected and claims to the nonelected species held withdrawn from further consideration. ***The prior art search, however, will not be extended unnecessarily to cover all nonelected species.*** Should applicant, in response to this rejection of the Markush-type claim, overcome the rejection, as by amending the Markush-type claim to exclude the species anticipated or rendered obvious by the prior art, the amended Markush-type claim will be reexamined. The prior art search will be extended to the extent necessary to determine patentability of the Markush-type claim. In the event prior art is found during the reexamination that anticipates or renders obvious the amended Markush-type claim, the claim will be rejected and the action made final. Amendments submitted after the final rejection further restricting the scope of the claim may be denied entry.

5. Claims 48 and 65 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species (see below i.e., ***Response to Restriction and/or Election of Species***).

6. Therefore, claims 37-47, 49-64 and 66-74 are examined on the merits in this action.

***Response to Restriction and/or Election of Species***

7. Applicant's election of Group I (claims 37-74) is acknowledged (e.g., see 6/14/04 Response).

8. Applicant's election of Group I (i.e., claims 37-74, previously drawn to claims 1-10 and 15-26 that were subsequently canceled in favor of claims 37-74) in 6/14/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the

restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a) and/ or 37 CFR 1.111(b)).

9. Applicant's election of species is also acknowledged.

10. The election of species traversal is on the ground(s) that "in so far as the Examiner has stated that the species present patentable subject matter without specifying which species are considered patentably distinguishable" (e.g., see 6/14/04 Response, page 16, last paragraph).

11. These arguments were fully considered but were not found persuasive. Although the Examiner did not type out each patentably distinct species, which might otherwise be viewed as an administrative burden, proper citations were provided in the Restriction requirement that clearly indicates the patentably distinct species (e.g., see 4/16/04 Restriction, page3, Subgroup 1 wherein a "Species of support" was required wherein Applicants were directed to select from the species occurring at "page 10, paragraph 31", which states, "Various materials can be used as supports. In particular, polystyrene films, paper, CDs, MODs, DVDs or FMDs can be used." Thus, the species of support i.e., polystyrene films, paper, CDs, etc. has been adequately set forth in the office action. Furthermore, as stated previously, the different species would require different searches and there is no expectation that the searches would be coextensive. The examiner maintains that this does create an undue search burden.

12. As a result, the restriction requirement and/or election of species is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

13. The references listed on applicant's PTO-1449 form have been considered by the Examiner. A copy of the form is attached to this Office Action (e.g., 6/13/01 IDS).

***Priority***

14. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 12/14/1998 and 7/30/1999. It is noted, however, that applicant has not filed a certified copy of the GERMANY 198 57 529.7 and GERMANY 199 35 553.3 applications as required by 35 U.S.C. 119(b). Therefore, the filing date of the instant application is deemed to the filing date of the PCT/DE99/03982 application of **December 14, 1999**.

***Specification***

15. The abstract of the disclosure is objected to because it contains more than 150 words. (See MPEP § 608.01, "Abstract of the Disclosure: A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims").

16. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the

printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

17. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Objections to the Claims***

18. Claims 37, 39 and 72 are objected to because of the following informalities:

A. Claim 37 is missing the word "than" in the phrase "temperature of less 90°C" in lines 7-8 (i.e., it should read "temperature of less than 90°C"). Correction is requested.

B. Claim 39 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form or rewrite the claim(s) in independent form. Claim 39 depends from claim 37. Claim 39 recites, "the substance is mobilized within the first solvent." However, claim 37 already recited this limitation, "... such that the substance dissolved

in the first solvent ... are mobilized within the solvent." Thus, claim 39, does not further limit claim 37.

C. Claim 72 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 53. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claims Rejections - 35 U.S.C. 112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 37-47, 49-64, 66-72 and 74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. For **claim 37**, the phrase "vaporizing the said second solvent ..." is vague and indefinite. For example, it is not clear how the second solvent can be vaporized when the second solvent hasn't been added or used in the method (i.e., the addition of the second solvent is "optional" e.g., see claim 37, line 8, "... optionally applying ... second solvent")? In addition, it is not clear when the second solvent is optionally applied to the support how said transport units can be applied in both a "solid state" (as required for the first solvent) and "liquid state" (as required for the second solvent) simultaneously?

Applicants are requested to clarify and/or correct. Therefore, claims 37 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

B. For **claim 37**, the phrase "embedding the substance in a matrix which is at least a first solvent, at a temperature of less than 90°C present in a solid state of aggregation" is vague and indefinite. For example, it is not clear what needs to be in the solid state of aggregation i.e., the substance, matrix or at least a first solvent? Applicants are requested to clarify and/or correct. Therefore, claims 37 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

C. For **claim 37 and 55**, the phrase "applying a physical process such that the substance dissolved in the first solvent which are present on the support are mobilized within the solvent until the thus mobilized substance enter near a surface area of the support" is vague and indefinite. For example, the mobilized substance is "already" located "near" the support (e.g., see above, "the substance ... which are present on [i.e., near] the support"), which would presumably preclude the use of a physical process because the limitation "until the thus mobilized substance enter near a surface area of the support" has already been met. If, "near" refers to some other distance (i.e., greater than the distance mentioned above), the Examiner contends that "near" is a relative term, which renders the claim indefinite and/or unclear. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See also MPEP § 2173.05(b). Thus, the metes and bound of the claimed

invention cannot be determined. Therefore, claims 37, 55 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

D. **Claims 53 and 72** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Here, Applicants have omitted from the claimed method positive method steps for applying substances to a support, which is otherwise required by the preamble (i.e., Applicants are claiming a method "for applying substances to a support", but don't actually recite a method step for such an application). Thus, the metes and bound of the claimed invention cannot be determined and claims 53, 72 and all dependent claims are rejected under 35 U.S.C. 112, second paragraph.

***Claims Rejections - 35 U.S.C. 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 53, 72 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Fodor et al. (Fodor, S. P. A.; Read, L.; Pirrung, M. C.; Stryer, L.; Lu, A. T. Solas, D. "Light-Directed, Spatially Addressable Parallel Chemical Synthesis" *Science* **1991**, *251*, 767-773).

For ***claims 53 and 72***, Fodor et al. (see entire document) disclose light-directed, spatially addressable parallel chemical synthesis (e.g., see Fodor et al, abstract), which anticipates the claimed invention. For example, Fodor et al. disclose a method for

applying substances to a support, such as monomers for the combinatorial synthesis of molecule libraries (e.g., see Fodor et al., figure 1 disclosing the deposition of monomers A-H for the synthesis of combinatorial libraries such as ACEG, BDFH, etc.; see also figure 2). Fodor et al. further disclose repeatedly directing electromagnetic waves in precise positions onto selected regions of the support charged with various molecules or various aggregates of these molecule thereby causing interaction between the various molecules or aggregates of these molecule with the incident electromagnetic waves (e.g., see Fodor et al., figure 1, "hv" step and "repeat" step; see also figure 7). Fodor et al. also disclose that the interaction of the incident electromagnetic waves with the molecules or with aggregates of these molecules or with other molecules causes local physical or chemical processes being intimated (e.g., see Fodor et al., figure 1 wherein the application of the light causes the removal of the photolabile protecting groups).

For ***claim 73***, Fodor et al. disclose the use of "transport units" like DMF (e.g., see figures 2 and 3), which reads on claim 73.

21. Claim 73 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishioka (U.S. Patent No. 5,449,754) (Date of Patent is **September 12, 1995**) (6/13/01 IDS).

For ***claims 73***, Nishioka (see entire document) discloses methods for the generation of combinatorial libraries using ink-jet printing technology (e.g., see Nishioka, abstract), which anticipates the claimed invention. For example, Nishioka discloses a method for applying immobilized biological molecules to support (e.g., see Nishioka, abstract, wherein the generation of an immobilized peptide library is disclosed; see also

columns 5-6, Example). Nishioka further discloses positioning the biological molecules to the support using at different times, transport units with different biological molecules (e.g., see Nishioka, column 3, lines 18-20, "In the first round each amino acid [i.e., each amino acid represents a "different" biological molecule] is bound to the 3,200,000 sites"; see also column 5, lines 53-61 corresponding to method steps 3 and 4, "An activated solution of ... amino-protected amino acid is placed in the print head reservoir ... The print head deposits the coupling solution [i.e., the transport unit] onto selected sites on the support"). Finally, Nishioka discloses coupling to the support at least two different biological molecules in one single combinatorial synthesis (e.g., see Nishioka, column 3, lines 20-27, especially lines 25-27, "... at the end of the synthesis there are 64 million sites, each containing a different hexapeptide [i.e., greater than "at least two different biological molecules]"; see also lines 27-39; see also method steps 5-9 in columns 5 and 6).

22. Claim 53, 54, 72 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishioka (U.S. Patent No. 5,318,679) (Date of Patent is **June 7, 1994**).

For ***claims 53 and 72***, Nishioka (see entire document) discloses methods for the generation of combinatorial libraries using laser copy technology (e.g., see Nishioka, abstract). For example, Nishioka disclose a method for applying substances to a support, such as monomers for the combinatorial synthesis of molecule libraries (e.g., see Nishioka, column 4, last paragraph wherein protected amino acids are disclosed). Nishioka further disclose repeatedly directing electromagnetic waves in precise positions

onto selected regions of the support charged with various molecules or various aggregates of these molecule thereby causing interaction between the various molecules or aggregates of these molecule with the incident electromagnetic waves (e.g., see Nishioka, steps 4 and 5, "4. Deprotection is accomplished by scanning the laser described above over the programmed sites. 5. Steps 2-4 are repeated as required"). Nishioka also disclose that the interaction of the incident electromagnetic waves with the molecules or with aggregates of these molecules or with other molecules causes local physical or chemical processes being intimated (e.g., see Nishioka, column 5, steps 4-5, wherein the application of the laser causes the removal of the protecting groups).

For ***claim 54***, Nishioka discloses a laser (e.g., see column 5, line 17)

For ***claim 73***, Nishioka disclose the use of "transport units" like DMF (e.g., see column 4, line 67).

23. Claim 37-39, 43-47, 50, 52-56, 60-64, 67, 69, 72 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Demers (WO 98/12559) (Date of Patent is **March 26, 1998**) (6/13/01 IDS) as evidenced by Nishioka (U.S. Patent No. 5,449,754) (Date of Patent is **September 12, 1995**) (6/13/01 IDS).

For ***claims 37-39, 52-56, 69, 72 and 73***, Demers (see entire document) discloses methods for the synthesis of spatially addressable combinatorial chemical arrays using, for example, a CD-ROM substrate (e.g., see abstract; see also Field of Invention), which anticipates the claimed invention. For example, Demers discloses embedding a substance in a matrix which is at least a first solvent, in a solid state of aggregation (e.g., see page

12, second full paragraph, "It will be appreciated that the synthesis layer ... may comprise a gel phase [i.e., solid state of aggregation] with solvent molecules incorporated therein [i.e., at least a first solvent]"). Demers also discloses applying the so formed transport units to a "support" (e.g., see Field of Invention, "The invention relates to:(1) methods for conducting chemical reactions on a support surface ... using recordable compact-disc technology previously developed for optical storage of computer data [e.g., CD-ROM substrate]"). Demers further discloses the formation of transport units that can be "mobilized as units" (e.g., see also page 12, first full paragraph; see also page 11, first full paragraph, "The size of the synthesis area [e.g., "transport units"] will in most cases be determined by the degree to which the laser light is focused ... The size of the synthesis sites [i.e., size of the units] can be varied to suit the resolution of the overall system and the number of library members [e.g., substances] to be prepared on the disc"; see also page 5, last paragraph, "In the present invention, a disc-shaped CD-array, functionalized on its surface with reactive groups which are blocked by laser-removable protecting groups, is rotated [i.e., "transported"] under a laser beam which is scanned radially across the disc").

Demers does not expressly state that a temperature of less than 90°C is used for deposition, but the Examiner contends that room temperature would ordinarily be presumed unless some other temperature was specified. Furthermore, Demers does not state that the substrate (e.g., CD) is heated in any way except during the "deprotection" method steps, which occurs after the deposition has already occurred and is only for "momentary" periods of time (e.g., see the deprotection of the functional groups may also

be accomplished thermally by irradiation with conventional infrared lasers ... Momentary surface temperatures in excess of 300°C are obtainable with such devices"). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). See MPEP § 2112.01. The Office does not have the facilities to make such a comparison and the burden is on the applicants to establish the difference. See *In re Best,* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *Ex parte Gray*, 10 USPQ 2d 1922 1923 (PTO Bd. Pat. App. & Int.).

Alternatively, even if *assuming arguendo* that Demers does not expressly or impliedly disclose a temperature less than 90° C, the Examiner contends that the use of such a temperature would be immediately envisioned by a person of ordinary skill in the art. See *In re Graves*, 69 F.3d 1147, 36 USPQ2d 1697 (Fed. Cir. 1995) (prior art reference disclosing a system for testing the integrity of electrical interconnections that did not specifically disclose simultaneous monitoring of output points still anticipated claimed invention if simultaneous monitoring is within the knowledge of a skilled artisan); see also *In re Donohue,* 766 F.2d 531, 533 (Fed. Cir. 1985) (prior art anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings and his own knowledge to possess the claimed invention); see also *In re LeGrice*, 301 F.2d 929, 936 (C.C.P.A. 1962) (same); see also *In re Best* 562 F.2d 1252, 1254, 195 USPQ 430,433 (CCPA 1997). Evidence that such a temperature (e.g., room temperature) is within the knowledge of a skilled artisan in accordance with *In re Graves*

(see above) can be illustrated by numerous references (e.g., see Nishioka, column 5, lines 64-65 wherein peptide synthesis was performed at "room temperature").

The method steps for applying a second solvent and then vaporizing said second solvent have not been given any patentable weight since these method steps are "optional" (see also 35 U.S.C. 112, second paragraph rejection above).

Demers also discloses applying a physical process such that the substance dissolved in the first solvent which are present on the support are mobilized within the solvent until the thus mobilized substance enter near a surface area of the support (e.g., see Demers, paragraph bridging pages 6-7, "The entire disc, or only selected synthesis sites, may then be irradiated [i.e., the application of a physical process] to remove any remaining protecting groups"; see also Field of Invention wherein the use of a "laser" is disclosed; see also 35 U.S.C. 112, second paragraph rejection above). In this scenario, monomeric building blocks (e.g., amino acids) used in the library synthesis (e.g., peptide library) are "mobilized" on the support until they approach [i.e., come "near" to] the reactive groups on the surface of the substrate where they covalently attach to said reactive surface groups [i.e., that have been deprotected by the irradiation] and are thus no longer mobilized.

Demers further disclose covalently linking the mobilized substance to molecules located on the support. For example, Demers discloses the formation of peptides using monomeric units that are "covalently" linked via covalent peptide bonds (e.g., see paragraph bridging pages 21-22, "The present invention may be employed for the synthesis ... of oligonucieotide arrays, or arrays of oligonucleotide analogues ... It may

also be employed for the synthesis of peptides"). Demers also disclose the "repetition" of such steps to form an array of polymers (e.g., see above wherein peptides, oligonucleotides and oligonucleotide analogous are disclosed, which have been produced using a "repetitive" coupling scheme).

Although Demers does not explicitly state the method steps for "washing" non-linked substances away from the synthesized oligomers, one of ordinary skill in the art would immediately envisage such steps because they are well-known and routine in the art. See *In re Graves*, 69 F.3d 1147, 36 USPQ2d 1697 (Fed. Cir. 1995) (prior art reference disclosing a system for testing the integrity of electrical interconnections that did not specifically disclose simultaneous monitoring of output points still anticipated claimed invention if simultaneous monitoring is within the knowledge of a skilled artisan); see also *In re Donohue*, 766 F.2d 531, 533 (Fed. Cir. 1985) (prior art anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings and his own knowledge to possess the claimed invention); see also *In re LeGrice*, 301 F.2d 929, 936 (C.C.P.A. 1962) (same); see also *In re Best* 562 F.2d 1252, 1254, 195 USPQ 430,433 (CCPA 1997). Evidence that these steps are within the knowledge of a skilled artisan in accordance with *In re Graves* (see above) can be illustrated by numerous references (e.g., see Nishioka, column 6, line 5, "The sample is washed at the end of the synthesis ... to remove side-chain blocking groups").

For ***claims 43 and 60***, Demers discloses temperatures that are 300 degrees lower than the support before the mobilization (e.g., see page 13, first full paragraph, "Momentary surface temperatures in excess of 300°C are obtainable with such devices").

For ***claim 44-45 and 61-62***, Demers discloses, for example, microprinting (e.g., see page 21, lines 1-2, "the present invention does not require that the CD-array be prepared by laser-directed synthesis. For example, mass production ... might be more economically achieved by another method ... such as ... microprinting"; see also page 4, last two paragraphs wherein laser jet and ink jet printers are disclosed).

For ***claims 46 and 63***, Demers discloses the transfer takes place with the aid of a laser light source (e.g., see Field of Invention).

For ***claims 47 and 64***, Demers discloses, for example, ultraviolet laser diodes (e.g., see page 10, last paragraph, "Ultraviolet laser diodes of sufficient intensity would be ideal for the present application").

For ***claims 50 and 67***, Demers discloses, for example, monomer for combinatorial synthesis including amino acids, nucleosides and derivatized nucleosides (e.g., see paragraph bridging pages 21-22, "The present invention may be employed for the synthesis ... of oligonucieotide arrays, or arrays of oligonucleotide analogues ... It may also be employed for the synthesis of peptides").

For ***claim 70***, Demers discloses, for example, CDs (e.g., see Field of abstract).

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon D Epperson whose telephone number is (571) 272-0808. The examiner can normally be reached Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jon D. Epperson, Ph.D.
July 28, 2005